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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,941	01/22/2002	David Hall	15186-24US JA/AD/MB	3864

20988 7590 03/18/2003  
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EXAMINER

PASS, BARRY

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/050,941

Applicant(s)

HALL ET AL.

Examiner

Barry Pass

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 11 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation TPSF-based optical imaging. The acronym TPSF is not commonly used in the art and must be fully written when first used in a claim.

Claim 11 and 13 appear to be translations of a foreign language and the meanings of the phrases “is complementary to provide” and “provide a same information,” respectively, are not clear

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Chance US 5,987,351. Chance discloses (abstract, columns 1-2, 4, 5: lines 1-24, 6: lines 3-21, 7: lines 49-56,

15: lines 21-48, 16: 5-18, claims 1-20) a system and method of optical imaging using time and frequency domain measurements to evaluate medical conditions using light from a tunable laser, a plurality of wavelengths injected at one or more positions, switching to direct the light at a plurality of injection ports, detection at multiple positions.

5. Claims 1-16 are, alternatively, rejected under 35 U.S.C. 102(b) as being anticipated by Feng et al. US 5,694,938. Feng et al. teach (abstract, column 2: lines 6-36, columns 3, 4, 7, 8: lines 34-49) a method of optical medical imaging using frequency and time domain measurements of diffusion of photons using multiple wavelengths provided by a plurality of laser sources, switching between multiple injection ports (Fig. 3) and detection with CCD camera and bandpass filter (column 9, lines 1-49).

### *Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 8-9, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chance in view of Feng et al. Chance teaches a method as recited in claim 1. Chance teaches optical detection with semiconductors (column 5, lines 65-68) but does not expressly teach detection with a CCD camera and filtering. Feng et al. teach (abstract, column 2: lines 6-36, columns 3, 4, 7, 8: lines 34-49) a method of optical medical imaging using frequency and time domain measurements of diffusion of photons using multiple wavelengths provided by a plurality of laser sources and detection with CCD camera and bandpass filter (column 9, lines 1-49). Accordingly, it would be obvious to someone of ordinary skill in the art at the time of the invention to combine the well known detection method as taught by Feng et al. with the imaging method taught by Chance.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


10. Gregory US 2001/0027316 teaches optical medical imaging measuring the temporal point spread function (TPSF) at various locations on the surface of a subject.

11. Wake US 6,339,216 teaches optical imaging of the breast measuring the temporal point spread function (TPSF) at various locations on the surface of a subject using multiple detector arrays.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Pass whose telephone number is (703) 305-0726. The examiner can normally be reached on Monday-Friday, 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on (703) 308-3256. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-0758 for regular communications and (703) 308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0873.

Barry Pass   
March 14, 2003

  
Marvin M. Lateef  
Supervisory Patent Examiner  
Group 3700